

7 *43 conclude* identifying said drug linked to said anchoring moiety.

1 51. (Amended) The method in accordance with claim 44, wherein said drug is
2 linked to said anchoring moiety according to the following formula:

3 A-L-D
4

5 wherein:

6 A is said anchoring moiety that is specific for said chemically reactive
7 group;

8 L is a linking group; and

9 D is said drug.

1 52. (Amended) A method for identifying a drug that binds at a preselected
2 target site on a biological molecule, said method comprising:

3 (a) providing a biological target molecule that comprises a chemically
4 reactive group;

5 (b) reacting said biological target molecule with a compound, said compound
6 comprising (1) A, wherein A is an anchoring moiety and (2) L, wherein L is a linking group,
7 wherein said anchoring moiety reacts with said chemically reactive group of said target molecule
8 to form a covalent bond, thereby resulting in said anchoring moiety being attached to said target
9 molecule through a covalent bond;

10 (c) combining said target molecule with one or more members of a library of
11 drugs that are capable of covalently bonding to said linking group, wherein at least one member
12 of said library forms a covalent bond with said linking group to form a target molecule
13 conjugated to A-L-D, wherein D is at least one member of said library forming said covalent
14 bond; and

15 (d) identifying said drug, D, that forms a covalent bond with said linking
16 group.

65 1 57. (Amended) The method in accordance with claim 56, wherein said
2 anchoring moiety is a member selected from the group consisting of a methanethiosulfonyl
3 group, a dithiopyridyl group, a reactive disulfide, an α -halo ketone, an α -diazo ketone, an
4 activated ester, a pentafluorophenyl ester, and an anhydride.

1 58. (Amended) A method in accordance with claim 52, wherein said
2 biological target molecule comprises a protein target and a chemically reactive group.

1 59. (Amended) A method for identifying a drug that binds at a preselected
2 target site on a biological molecule, said method comprising:
3 identifying an anchoring moiety that is specific for a first target site on a protein;
4 identifying a drug that is specific for a second target site on said protein, wherein
5 said anchoring moiety and said drug are linked by a formula

A-L-D

7 wherein:

8 A is an anchoring moiety that is specific for a first target site on a protein;

9 L is a linking group; and

10 D is a drug, wherein D is specific for a second target site on said protein,

11 thereby identifying said drug.

1 62. (Amended) The method in accordance with claim 59, wherein said drug is
2 a member of the group consisting of a peptide, a peptoid, a random bio-oligomer, a
3 benzodiazepine, a hydantoin, a dipeptide, a vinylogous polypeptide, a nonpeptidal
4 peptidomimetic, an oligocarbamate, a peptidyl phosphonate, a nucleic acid, an antibody, an
5 isoprenoid, a thiazolidinone, a metathiazanone, a pyrrolidine, a morpholino compound,
6 cyclopentane carboxylic acid, phenylalkylamines, dihydropyridines, an antineoplastic agent and a
7 local anesthetic.

1 66. (Amended) The method in accordance with claim 65, wherein said
2 anchoring moiety is a member selected from the group consisting of a methanethiosulfonyl
3 group, a dithiopyridyl group, a reactive disulfide, an α -halo ketone, an α -diazo ketone, an
4 activated ester, a pentafluorophenyl ester, and an anhydride.